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Ethernet Event Detector Instruments

The EM405D100, EM405-8x106 and EM405-8x107 are 32, 64, and 128 channel input modules that sample and selectively store up to 128 bits of data along with a 31 bit time tag at rates up to 5 MSPS. These instruments have the ability to store all data at the specified sample rate or to selectively store input values based upon changes in state on one or more of the inputs. Each version is 1U high with the 32 channel unit designed for bench applications and the 64 and 128 channel version for rack mounting.

Specifications:

Number of Channels: 32, 64 or 128

Sample Rate: up to 5 Msps

Input Debounce: 0 to 128 ms
Software selectable

Input Specifications:

Threshold Resolution	100mV
Threshold Range	0 to 25.6V
Threshold Accuracy	±0.5% of FS
Max. Input Voltage	48V
Input Hysteresis	25mV
Input Impedance	>100K_
Input Current	<300_A

Input Masking:
Allows selection of bits to be monitored

Local Memory:
32K deep (data and 31–bit timestamp)

Input Polarity: Software Selectable

Sampling Strobe:
- Internal: to 5 MHz
- Front Panel: to 5 MHz
- Backplane Trigger: to 5 MHz
- Source and prescaler software programmable

Interrupts:
- Data Stored
- FIFO Half-Full
- FIFO Full
- Time-Stamp Rollover
- Change of State
- Level Transition
- Bit Pattern

I/O Connectors:
- 44 pin DSUB

Indicators: Power
Module Access
LAN Status

Temperature:

Operating	0° C to 50° C
Storage	-40° C to 70° C

Networking

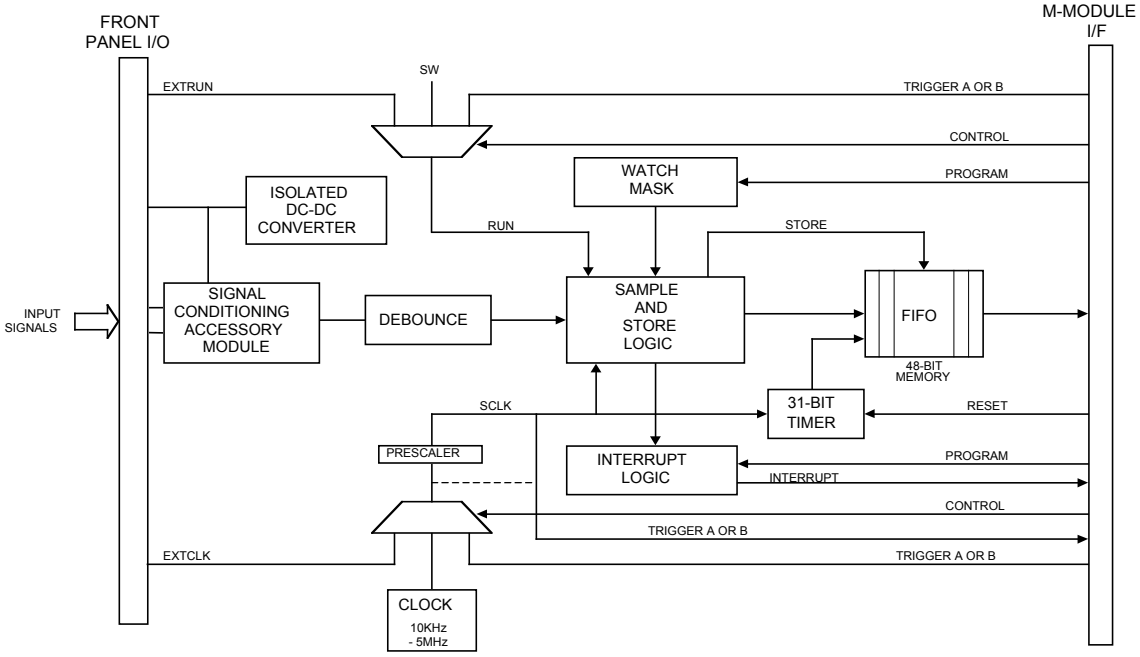
- Easy network configuration through web based interface
- TCP/IP and UDP/IP supported for M-module communication
- Static IP, DHCP, and AutoIP addressing supported
- Ethernet 10Base-T or 100Base-TX (Auto Sensing)

Applications

- Acquisition of transient signals
- Real-time data compression
- Logic Analysis
- Event counting

Additional Information

User Manuals for this carrier and C&H M-modules can be found on our website at www.chtech.com.



Specifications:

Implementation:

- All versions use either two (2), four (4) or eight (8) ANSI/VITA Standard 16 Channel M-Modules (MA203), each of which have the block diagram shown above
- See the EM405D and EM405-8 on C&H web site for further information on the instrument enclosure mounting and dimensions.

Trigger/Sample Strobe Features:

- An external clock may be routed through one mezzanine to a carrier trigger and back to the Event Detector triggers to minimize skew between channels
- One mezzanine's clock may be used as a master in a similar manner

External Trigger Inputs:

- 32 Channel Unit TTL
- 64 & 128 Channel Units TTL and LVDS

External Power (32 Channel Unit):

- AC Input 100 to 240VAC, 47 to 63Hz with furnished adapter
- Alternatively DC powered by 12V, 1A

External Power (64 and 128 Channel Units):

- AC Input 85 to 265VAC, 47 to 63Hz
- Alternatively DC Powered by 36 to 75V

Software Driver:

- Windows DLL
- Soft Front Panel Executable
- Online Help
- LabWindows/CVI Function Panels
- ANSI-C Source Code
- LabView

Conformance:

- These modules will be CE compliant for Emissions, Immunity and Safety

Ordering Information:

32 Channel Event Detector:

Model EM405D100 P/N 11030010-0001

64 Channel Event Detector:

Model EM405-8x106 P/N 11030010-0002

128 Channel Event Detector:

Model EM405-8x107 P/N 11030010-0003